



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Kimelman  
Serial No. : 10/073,630  
Filed : 02/11/2002  
Title : Program components having multiple selectable implementations

Art Unit : 2193  
Examiner : Mitchell, Jason D.

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

BRIEF ON APPEAL

**(1) Real Party in Interest**

The assignee of record, International Business Machines Corporation, is the real party in interest.

**(2) Related Appeals and Interferences**

None known.

**(3) Status of Claims**

Claims 1-13 are pending in the case. (See Appendix of Claims.) Claims 1-13 were rejected under 35 U.S.C. §103(a) as being obvious in view of certain prior art. The rejections of all of the pending claims are being appealed.

10/03/2006 HGBREM1 00000037 500510 10073630  
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I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

September 27, 2006

Date of Deposit

*Michael J. Buchenhorner*

Signature

Michael J. Buchenhorner

Typed or Printed Name of Person Signing Certificate

**(4) Status of Amendments**

No substantive amendments have been made since the Final Office Action dated March 23, 2006.

**(5) Summary of Claimed Subject Matter**

Claim 1

The claimed invention includes a method of minimizing the cost of using a component of a computer program [specification page 1, paragraph 0006], the method comprising the steps of: instrumenting the aforesaid component to gather cost-related information during at least a partial run of the aforesaid program [specification page 1, paragraph 0008]; using the cost-related information to estimate a cost for using each of a plurality of explicitly selectable implementations of a component in running the program [specification page 1, paragraph 0009]; based on the costs estimated, selecting, at runtime, one of the plurality of explicitly selectable implementations for a subsequent at least partial run of the program [specification page 1, paragraph 0010].

Claim 5

Claim 5 recites a computer readable medium counterpart of claim 1 and stands or falls with claim 1 for purposes of this appeal.

Claim 9

Claim 9 recites a computer program counterpart of claim 1 and stands or falls with claim 1 for purposes of this appeal.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The grounds of rejection to be reviewed on appeal are:

1. Did the Examiner properly reject claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over Bates et al. (U.S. Patent 6,360,360) in view of Beadle (U.S. Patent 6,530,075)?

2. Did the Examiner properly reject claims 1-13 under 35 U.S.C. §103(a) as having being unpatentable over Raverdy et al. (U.S. Patent 6,324,619) in view of Blake (U.S. Patent 5,752,038)?

**(7) Argument**

**Rejections under 35 U.S.C. §103**

**a. The examiner did not properly reject claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over Bates in view of Beadle.**

In the non-final Office Action dated September 12, 2005, the Examiner rejected claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over Bates in view of Beadle. Applicant responded by pointing out that under 35 U.S.C. §103(c)(1) the subject matter of Bates shall not preclude patentability of the claimed invention under section 103. In the final Office Action, the Examiner said that "Applicant's statement regarding the co-ownership of the instant applicant [sic. Application] and the Bates reference was insufficient to invalidate the reference." Appellants did not seek to invalidate the Bates reference. Rather Appellants maintain that Bates shall not be used to preclude patentability of the claimed invention. The facts of record establish that. Based on the record this case, the Examiner must conclude that the claimed invention was made no later than the filing date of February 11, 2002. The assignment of record which was recorded on February 11, 2002 shows that as of that date the claimed invention was assigned to International Business Machines Corporation. Therefore, the statute is unmistakably clear that Bates, which is owned by IBM, cannot be used to preclude patentability of the claimed invention.

The rejection based on Bates and Beadle was not repeated in the final Office Action but the Examiner's statement indicates intent to maintain the previous rejection. Therefore, Appellants now contend that the rejection was in error and request its reversal.

**b. The Examiner did not properly reject claims 1-13 under 35 U.S.C. §103(a) as being unpatentable over Raverdy in view of Blake.**

In the final Office Action, the Examiner rejected claims 1-13 as unpatentable over Raverdy in view of Blake. The Appellant contends that this was in error and thus should be reversed.

As to claim 1, the Examiner admits that Raverdy does not disclose the claim limitation of instrumenting to gather cost-related information during at least a partial run of the program. See final Office Action, page 5. Further, the Office Action does not show the presence of this step in the Blake reference. Therefore, the element is missing from the cited combination of references.

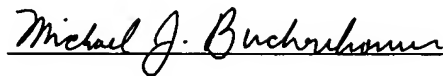
Blake relates to a method and system for determining an optimal placement order for code portions within a module to improve locality of reference and reduce the working set of the module. Blake discloses the reduction of the working set of a module. The optimal placement order for code portions within a module reflects the concurrency of usage for code portions during execution of the module. That is, all code portions which execute within a certain period of time are placed in close proximity to each other within the executable module. This method of "time ordering" reduces the working set of a module. However, Blake does not teach or suggest using cost-related information as claimed. A code segment is not the same as or the equivalent of alternative implementations of components as claimed. The Examiner defends the rejection by arguing that "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." The Examiner's reliance on *In re Keller* is misplaced. In *Keller*, the Patent and Trademark Office had established a *prima facie* case of obviousness. The Examiner "bears the initial burden . . . of presenting a *prima facie* case of unpatentability. " *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). In this case, Appellants contend that there is no *prima facie* case of obviousness. It is not Appellant's burden to establish non-obviousness. Moreover, pointing out that neither of the cited references discloses a claim element must be shown by discussing each of the references. Citing a combination does not relieve the Patent Office of its burden. Therefore, the cited combination of references neither teach nor suggest using the cost-related information as claimed and no *prima facie* case of obviousness has been made. Therefore, Appellants request reversal.

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Respectfully submitted,

Date: September 27, 2006

A handwritten signature in cursive script, reading "Michael J. Buchenhorner", is written over a horizontal line.

Michael J. Buchenhorner

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## **Appendix of Claims**

1. A method of minimizing the cost of using a component of a computer program, the method comprising steps of:

instrumenting said component to gather cost-related information during at least a partial run of said program;

using the cost-related information to estimate a cost for using each of a plurality of explicitly selectable implementations of a component in running the program; and

based on the costs estimated, selecting, at runtime, one of the plurality of explicitly selectable implementations for a subsequent at least partial run of the program.

2. The method as set forth in claim 1, wherein a default implementation is used during the at least partial run.

3. The method as set forth in claim 1, wherein the selecting step is carried out by an other component operable as a controller.

4. The method as set forth in claim 1, wherein the selecting step is carried out by an application program.

5. A computer readable medium including computer instructions for carrying out a method of minimizing the cost of using a component of a computer program, the method comprising steps of:

instrumenting the component to gather cost-related information during at least a partial run of said program;

using the cost-related information to estimate a cost for using each of a plurality of explicitly selectable implementations in running the program; and

based on the costs estimated, selecting, at runtime, one of the explicitly selectable implementations for a subsequent at least partial run of the program.

6. The computer readable medium as set forth in claim 5, wherein a default implementation is used during the at least partial run.

7. The computer readable medium as set forth in claim 5, wherein the selecting step is carried out by an other component operable as a controller.

8. The computer readable medium as set forth in claim 5, wherein the selecting step is carried out by an application program.

9. A computer program comprising a plurality of components which interact during running thereof, at least one of the components comprising:

- a) a plurality of explicit selectable alternative implementations;
- b) a common interface and semantics for receiving messages from another one of the components and sending messages thereto;
- c) an instrumentation for gathering cost-related information during at least a partial run of the computer program;
- d) a cost estimator for using the cost-related information to estimate a cost for using each of the explicit selectable alternative implementations; and
- e) a selector for choosing, at runtime, one of the alternative implementations in response to a message received at the interface from one of an application program and another one of the components.

10. The computer program as set forth in claim 9, wherein one of the alternative implementations comprises a default implementation which is operational before operation of the selector.

11. The computer program as set forth in claim 9, the selector being operable to choose an alternative implementation based upon a cost measurement by the instrumentation.

12. The method of claim 1 further comprising a step of providing the component with the plurality of explicit selectable implementations which share a common component interface and semantics.

13. The method of claim 5 further comprising a step of providing the component with the plurality of explicit selectable implementations which share a common component interface and semantics.



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### **Evidence Appendix**

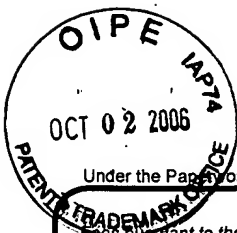
None.

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**Related Proceedings Appendix.**

None.



PTO/SB/17 (07-06)

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Effective on 12/08/2004.  
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL

## For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

### Complete if Known

Application Number	10/073,630
Filing Date	February 11, 2002
First Named Inventor	Kimelman
Examiner Name	Jason D. Mitchell
Art Unit	2193
Attorney Docket No.	YOR920020023US2

### METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 50-0510 Deposit Account Name: IBM/TJ Watson

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### FEE CALCULATION

#### 1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

#### 2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
<b>Total Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>
_____ - 20 or HP = _____ x _____ = _____		
HP = highest number of total claims paid for, if greater than 20.		
<b>Indep. Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>
_____ - 3 or HP = _____ x _____ = _____		
HP = highest number of independent claims paid for, if greater than 3.		

#### 3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____ - 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____				

#### 4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)	Fees Paid (\$)
Other (e.g., late filing surcharge): <u>Appeal Brief</u>	\$500.00

### SUBMITTED BY

Signature	<u>Michael J. Buchenhorner</u>	Registration No. (Attorney/Agent) 33,162	Telephone 305 273-8007
Name (Print/Type)	Michael J. Buchenhorner	Date September 27, 2006	

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